Intensive Care Medicine

Official Journal of the European Society of Intensive Care Medicine and the European Society of Pediatric Intensive Care

Managing Editor
F. Lemaire, Créteil, France

Associate Editor
C. Brun-Buisson, Créteil, France

Editors
G. Hedenstierna, Uppsala, Sweden
L. G. Thijs, Amsterdam, The Netherlands
M. J. Tobin, Chicago, USA

Editor Neonatal and Pediatric Intensive Care
G. Simbruner, Munich, Germany

Review Editor
P. Suter, Geneva, Switzerland

Assistant Editor
A. Webb, London, UK

Volume 20, 1994

Springer International

Advisory Board
N. Aikawa, Tokyo, Japan
D. Bihari, London, UK
J. Bion, Birmingham, UK
H. Bruining, Rotterdam, The Netherlands
H. Burchardi, Göttingen, Germany
L. Dragsted, Herlev, Denmark
J. Y. Fagon, Paris, France
A. B. J. Groeneveld, Amsterdam, The Netherlands
M. Hemmer, Luxembourg, Luxembourg
F. Jardin, Boulogne, France
G. Kaczmarczyk, Berlin, Germany
G. Lister, New Haven, USA
A. Okken, Groningen, The Netherlands
A. Pesenti, Monza, Italy
J. Pfenninger, Bern, Switzerland
M. Pinsky, Pittsburgh, USA
H.-J. Priebe, Freiburg, Germany
D. Reis Miranda, Groningen, The Netherlands
J. L. Robotham, Baltimore, USA
A. Rossi, Verona, Italy
M. D. Schaller, Lausanne, Switzerland
H. P. Schuster, Hildesheim, Germany
W. Seeger, Giessen, Germany
J. Takala, Kuopio, Finland
J. Tibballs, Melbourne, Australia
A. Torres, Barcelona, Spain
A. Versprille, Rotterdam, The Netherlands
J.-L. Vincent, Brussels, Belgium

Founded in 1975 as **European Journal of Intensive Care Medicine** by H. Lutz, J. Kachaner, K. Peter, J. Tinker, and G. Wolff.

H. Lutz, Mannheim (Managing Editor Vols. 1–3, 1975–1977; Editor Vols. 4–11, 1978–1985). **J. Kachaner,** Paris (Editorial Secretary Vols. 1 and 2, 1975 and 1976). **K. Peter,** München (Editorial Secretary Vols. 1–3, 1975–1977; Editor Vols. 4–11, 1978–1985). **J. Tinker,** London (Editorial Secretary Vols. 1–3, 1975–1977; Editor Vols. 4–8, 1978–1982; Managing Editor Vols. 9–14, 1983–1988; Editor as of Vol. 15, 1989). **G. Wolff,** Basel (Editorial Secretary Vols. 1–3, 1975–1977; Editor Vols. 4–13, 1978–1987). **M. Rapin,** Paris (Editorial Secretary Vol. 3, 1977; Editor Vols. 4–10, 1978–1984). **F. Lemaire,** Créteil (Editor Vols. 11–14, 1985–1988; Managing Editor as of Vol. 15, 1989). **P. M. Suter,** Genève (Editor as of Vol. 11, 1985). **W. M. Zapol,** Boston (Editor as of Vol. 11, 1985). **K. L. Brigham,** Nashville (Editor as of Vol. 12, 1986). **K. J. Falke,** Berlin (Editor as of Vol. 12, 1986). **G. Hedenstierna,** Uppsala (Editor as of Vol. 14, 1988).

The title of the Journal was changed to **Intensive Care Medicine** as of Vol. 3 (1977). As of Vol. 11 (1985) it is the official journal of the European Society of Intensive Care Medicine and as of Vol. 20 (1994) the official journal of the European Society of Pediatric Intensive Care.

Submission of a manuscript implies: that the work described has not been published before (except in the form of an abstract or as part of a published lecture, review, or thesis); that it is not under consideration for publication elsewhere; that its publication has been approved by all coauthors, if any, as well as by the responsible authorities at the institute where the work has been carried out; that, if and when the manuscript is accepted for publication, the authors agree to automatic transfer of the copyright to the publisher; and that the manuscript will not be published elsewhere in any language without the consent of the copyright holders.

All articles published in this journal are protected by copyright, which covers the exclusive rights to reproduce and distribute the article (e. g., as offprints), as well as all translation rights. No material published in this journal may be reproduced photographically or stored on microfilm, in electronic data bases, video disks, etc., without first obtaining written permission from the publisher.

The use of general descriptive names, trade names, trademarks, etc., in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations.

While the advice and information in this journal is believed to be true and accurate at the date of its going to press, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Special regulations for photocopies in the USA. Photocopies may be made to personal or in-house use beyond the limitations stipulated under Section 107 or 108 of U. S. Copyright Law, provided a fee is paid. All fees should be paid to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA, stating the ISSN 0342-4642, the volume, and the first and last page numbers of each article copied. The copyright owner's consent does not include copying for general distribution, promotion, new works, or resale. In these cases specific written permission must first be obtained from the publisher.

Springer Verlag
Berlin Heidelberg New York London Paris Tokyo
Hong Kong Barcelona Budapest
Printers: Druckerei Appl, Wemding. Printed in Germany –
© Springer-Verlag Berlin Heidelberg 1994
Springer-Verlag GmbH & Co. KG, D-14197 Berlin, Germany

Number 1

Editorials
M. R. Pinsky
Beyond global oxygen supply-demand relations: in search of measures of dysoxia 1

R. Spragg
Making progress 4

Originals
B. Lachmann, E. P. Eijking, K. L. So, D. Gommers
In vivo evaluation of the inhibitory capacity of human plasma on exogenous surfactant function 6

G. Hanique, T. Dugernier, P. F. Laterre, A. Dougnac, J. Roeseler, M. S. Reynart
Significance of pathologic oxygen supply dependency in critically ill patients: comparison between measured and calculated methods 12

G. Hanique, T. Dugernier, P. F. Laterre, J. Roeseler, A. Dougnac, M. S. Reynart
Evaluation of oxygen uptake and delivery in critically ill patients: a statistical appraisal 19

F. Brivet, M. Bernardin, P. Cherin, J. Chalas, P. Galanaud, J. Dormont
Hyperchloremic acidosis during grand mal seizure lactic acidosis 27

P. Burtin, P. E. Bollaert, L. Feldmann, L. Nace, Ph. Lelarge, Ph. Bauer, A. Larcan
Prognosis of stroke patients undergoing mechanical ventilation 32

R. E. Collis, P. W. Collins, C. N. Gutteridge, A. Kaul, A. C. Newland, D. M. Williams, A. R. Webb
The effect of hydroxyethyl starch and other plasma volume substitutes on endothelial cell activation: an in vitro study 37

Brief reports
F. Barranco, M. Sanchez, J. Rodriguez, M. Guerrero
Efficacy of flecainide in patients with supraventricular arrhythmias and respiratory insufficiency 42

A. Koegler, P. Sauder, A. Marolf, A. Jaeger
Amniotic fluid embolism: a case with non-cardiogenic pulmonary edema 45

O. Bastien, R. Boulieu, N. Bleyzac, S. Estanove
Clinical use of ganciclovir during renal failure and continuous hemodialysis 47

F. Moritz, J. M. Droy, G. Dutheil, J. Melki, G. Bonmarchand, J. Leroy
Acute pancreatitis after carbamate insecticide intoxication 49

Neonatal and pediatric intensive care
W. Weyland, A. Weyland, U. Fritz, K. Redecker, F.-B. Ensink, U. Braun
A new paediatric metabolic monitor 51

K. Mikawa, N. Maekawa, K. Nishina, O. Tanaka, H. Yaku, H. Obara
Improvement of gas exchange following endobronchial instillation of an exogenous surfactant in an infant with respiratory failure by postoperative pulmonary hemorrhage 58

D. C. G. Bachmann, J. Pfenninger
Respiratory syncytial virus triggered adult respiratory distress syndrome in infants: a report of two cases 61

Expert panel
Consensus conference on mechanical ventilation – January 28–30, 1993 at Northbrook, Illinois, USA. Part 1 64

European Society of Intensive Care Medicine
Guidelines for training in intensive care medicine 80

Correspondence 82

Announcements 31

Number 2

Editorials
C. K. Mahutte
Continuous intra-arterial blood gas monitoring 85

A. H. Morris
Uncertainty in the management of ARDS: lessons for the evaluation of a new therapy 87

U. Haglund
Intramucosal pH 90

J. Pugin
Bacteremia, sepsis and shock 92

Originals
J. Rello, M. Ricart, B. Mirelis, E. Quintana, M. Gurgui, A. Net, G. Prats
Nosocomial bacteremia in a medical-surgical intensive care unit: epidemiologic characteristics and factors influencing mortality in 111 episodes 94

M. G. Mythen, A. R. Webb
Intra-operative gut mucosal hypoperfusion is associated with increased post-operative complications and cost 99

D. Higgins, M. G. Mythen, A. R. Webb
Low intramucosal pH is associated with failure to acidify the gastric lumen in response to pentagastrin 105

Y. Wakabayashi, T. Kikuno, T. Ohwada, R. Kikawada
Rapid fall in blood myoglobin in massive rhabdomyolysis and acute renal failure 109

H. Ensinger, K. Träger, W. Geisser, T. Anhäupl, F. W. Ahnefeld, J. Vogt, M. Georgieff
Glucose and urea production and leucine, ketoisocaproate and alanine fluxes at supraphysiological plasma adrenaline concentrations in volunteers 113

P. Mery, B. Riou, D. Chemla, Y. Lecarpentier
Cardiotoxicity of colchicine in the rat 119

H. Higashiyama, M. Yamaguchi, K. Kumuda, H. Sasaki, T. Yamaguchi, K. Ozawa
Functional deterioration of the liver by elevated inferior vena cava pressure: a proposed upper safety limit of pressure for maintaining liver viability in dogs 124

S. L. Krachmann, R. F. Lodato, R. Morice, G. Gutierrez, D. R. Dantzker
Effects of dobutamine on oxygen transport and consumption in the adult respiratory distress syndrome 130

Brief reports
G. Bouachour, P. Tirot, N. Varache, J. P. Gouello, P. Harry, Ph. Alquier
Hemodynamic changes in acute adrenal insufficiency 138

G. Bernardin, D. Milhaud, P. M. Roger, G. Pouliquen, P. Corcelle, M. Mattei
Swan-Ganz catheter-related pulmonary valve infective endocarditis: a case report 142

P. V. van Heerden, I. R. Jenkins, W. P. D. Woods, E. Rossi, P. D. Cameron
Death by tanning – a case of fatal basic chromium sulphate poisoning 145

A. Borgeat, O. H. G. Wilder-Smith, P. Jallon, P. M. Suter
Propofol in the management of refractory status epilepticus: a case report 148

Expert panel
Consensus conference on mechanical ventilation – January 28–30, 1993 at Northbrook, Illinois, USA. Part 2 150

European Society of Intensive Care Medicine
Guidelines for the utilization of intensive care units 163

Correspondence 165

Announcements 167

Number 3

Editorials
F. Jardin
PEEP and ventricular function 169

J. L. Robotham, L. C. Becker
The cardiovascular effects of weaning: stratifying patient populations 171

W. G. Johanson
Pneumonia prevention: a step backwards 173

Originals
J. E. Berglund, E. Haldén, S. Jakobson, J. Landelius
Echocardiographic analysis of cardiac function during high PEEP ventilation 174

Ch. Richard, J.-L. Teboul, F. Archambaud, J.-L. Hebert, P. Michaut, P. Auzepy
Left ventricular function during weaning of patients with chronic obstructive pulmonary disease 181

J. J. Rouby, P. Poète, E. Martin de Lassale, M. H. Nicolas, L. Bodin, V. Jarlier, A. M. Korinek, P. Viars
Prevention of Gram negative nosocomial bronchopneumonia by intratracheal colistin in critically ill patients. Histologic and bacteriologic study 187

J. Rello, V. Ausina, M. Ricart, C. Puzo, E. Quintana, A. Net, G. Prats
Risk factors for infection by *Pseudomonas aeruginosa* in patients with ventilator-associated pneumonia 193

A. Fernandez, J. Muñoz, B. de la Calle, I. Alia, A. Ezpeleta, M. de la Cal, A. Reyes
Comparison of one versus two bronchodilators in ventilated COPD patients 199

Review article
M. G. Mythen, A. R. Webb
The role of gut mucosal hypoperfusion in the pathogenesis of post-operative organ dysfunction 203

Brief reports
D. Pappert, R. Roussaint, H. Gerlach, K. Falke
Continuous monitoring of blood gases during hypercapnia in a patient with severe acute lung failure 210

M. Singer, T. McNally, G. Screaton, I. Mackie, S. Machin, S. L. Cohen
Heparin clearance during continuous veno-venous haemofiltration 212

J. E. Szalados, R. B. Vukmir
Acute adrenal insufficiency resulting from adrenal hemorrhage as indicated by post-operative hypotension 216

A. Alberti, S. Valenti, F. Gallo, M. Petolillo, D. Del Monte
Acute buflomedil intoxication: a life-threatening condition 219

P. F. Soding, J. R. Klinck, A. Kong, M. Farrington
Infective endocarditis of the pulmonary valve following pulmonary artery catheterisation 222

Consensus report
G. R. Bernard, A. Artigas, K. L. Brigham, J. Carlet, K. Falke, L. Hudson, M. Lamy, J. R. LeGall, A. Morris, R. Spragg, The Consensus Committee
Report of the American-European consensus conference on ARDS: definitions, mechanisms, relevant outcomes and clinical trial coordination 225

Technique
J. Holton, A. R. Webb
An evaluation of the microbial retention performance of three ventilator-circuit filters 233

Meeting report
M. Lamy, L. G. Thijs
Round Table Conference on Mediators of Sepsis – Brussels, Belgium, March 21–23, 1992 238

Correspondence 242

Announcements 245

Number 4

Editorials
R. K. Albert
One good turn . . . 247

J. D. Miller
Vasoconstriction as head injury treatment – right or wrong? 249

Spanish Group for the Epidemiological Analysis of Critical Patients (PAEEC)
Quality of life: a tool for decision-making in the ICU 251

G. Hedenstierna
Basic science in intensive care 253

Originals
M. Wysocki, C. Delclaux, E. Roupie, O. Langeron, N. Liu, B. Herman, F. Lemaire, L. Brochard
Additive effect on gas exchange of inhaled nitric oxide and intravenous almitrine bismesylate in the adult respiratory distress syndrome 254

B. Asgeirsson, P. O. Grände, C. H. Nordström
A new therapy of post-trauma brain oedema based on haemodynamic principles for brain volume regulation 260

G. Rohr, P. Reimnitz, P. Blanke
Treatment of hypertensive emergency. Comparison of a new dosage form of the calcium antagonist nitrendipine with nifedipine capsules 268

C. Martin, P. Saux, J.-L. Mege, G. Perrin, L. Papazian, F. Gouin
Prognostic value of serum cytokines in septic shock 272

Brief reports
G. Castor, U. Schmidt
Urapidil permeates the intact blood-brain barrier 278

N. Heye, K. Terstegge, C. Sirtl, U. McMonagle, K. Schreiber, M. Meyer-Geßner
Wernicke's encephalopathy – causes to consider 282

J.-L. Lin, P.-S. Lim, M.-L. Leu, C.-C. Huang
Outcomes of severe hyperkalemia in cardiopulmonary resuscitation with concomitant hemodialysis 287

Basic science series
B. E. Marshall, C. Marshall, F. Frasch, C. W. Hanson
Role of hypoxic pulmonary vasoconstriction in pulmonary gas exchange and blood flow distribution. I. Physiologic concepts 291

Meeting report
Round Table Conference on Metabolic Support of the Critically Ill Patients – March 20–22, 1993 298

Expert panel
The problem of sepsis. An expert panel report of the European Society of Intensive Care Medicine 300

Book reviews 305

Correspondence 306

Announcements 267, 286

Number 5

Editorials
M. Tryba
Stress ulcer prophylaxis – quo vadis? 311

Ch. Brun-Buisson
The HA-1A saga: the scientific and ethical dilemma of innovative and costly therapies 314

I. L. Cohen
Weaning from mechanical ventilation – the team approach and beyond 317

Originals
L. Puybasset, J. J. Rouby, E. Mourgeon, T. E. Stewart, P. Cluzel, M. Arthaud, P. Poète, L. Bodin, A. M. Korinek, P. Viars
Inhaled nitric oxide in acute respiratory failure: dose-response curves 319

L. M. Bigatello, R. E. Greene, C. L. Sprung, E. A. Panacek, R. C. Straube, J. L. Zimmerman, R. J. Maunder, P. N. Lanken, E. Pile-Spellmann, K. S. Stanek, A. Zaslavsky, W. M. Zapol
HA-1A in septic patients with ARDS: results from the pivotal trial 328

D. F. Zandstra, Ch. P. Stoutenbeek
The virtual absence of stress-ulceration related bleeding in ICU patients receiving prolonged mechanical ventilation without any prophylaxis. A prospective cohort study 335

J. P. Saal, R. Habbal, P. Estagnasie, D. Lellouche, A. Castaigne, J. L. Dubois-Randé
Effects of piroximone on the right ventricular function in severe heart failure patients 341

M. Lichtwarck-Aschoff, S. Leucht, H. W. Kisch, G. Zimmermann, G. Blümel, U. J. Pfeiffer
Monitoring of right ventricular function using a conventional slow response thermistor catheter 348

A. Lengas, V. Poletti, L. Pacifico, C. di Domizio, M. Patelli, L. Spiga
Acute lung inflammation: neutrophil elastase versus neutrophils in the bronchoalveolar lavage – neutrophil elastase reflects better inflammatory intensity 354

J. E. Berglund, E. Haldén, S. Jakobson, J. Svensson
PEEP ventilation does not cause humorally mediated cardiac output depression in pigs 360

Neonatal and pediatric intensive care
B. P. Wagner, J. Pfenninger
Once daily dosing of netilmicin in neonatal and pediatric intensive care 365

G. Zobel, D. Dacar, B. Rigler, J. Berger, H. Metzler
Prolonged extracorporeal organ support in a 2-year-old boy after cardiac surgery 368

J. A. Hazelzet, E. van der Voort, J. Lindemans, P. G. J. ter Heerdt, H. J. Neijens
Relation between cytokines and routine laboratory data in children with septic shock and purpura 371

M. K. Decell, J. B. Gordon, K. Silver, K. Meagher-Villemure
Fulminant hepatic failure associated with status epilepticus in children: three cases and a review of potential mechanisms 375

Basic science series
B. E. Marshall, C. W. Hanson, F. Frasch, C. Marshall
Role of hypoxic pulmonary vasoconstriction in pulmonary gas exchange and blood flow distribution. 2. Pathophysiology 379

Consensus conference
Predicting outcome in ICU patients 390

Correspondence 398

Announcements 378

Erratum 378

Number 6

Editorials
J. J. Marini
Airway resistance – an old friend re-visited 401

J. Takala
Splanchnic perfusion in shock 403

M. S. Niederman, A. M. Fein
Predicting bacteremia in criticaly ill patients: a clinically relevant effort? 405

Originals
G. Nakos, S. Zakinthinos, A. Kotanidou, H. Tsagaris, C. Roussos
Tracheal gas insufflation reduces the tidal volume while $PaCO_2$ is maintained constant 407

A. R. Edouard, A. -C. Degrémont, J. Duranteau, E. Pussard, A. Berdeaux, K. Samii
Heterogenous regional vascular responses to simulated transient hypovolemia in man 414

G. Conti, R. A. De Blasi, A. Lappa, A. Ferretti, M. Antonelli, M. Bufi, A. Gasparetto
Evaluation of respiratory system resistance in mechanically ventilated patients: the role of the endotracheal tube 421

K. J. Schwenzer, A. Gist, C. G. Durbin
Can bacteremia be predicted in surgical intensive care unit patients? 425

D. Matamis, M. Tsagourias, K. Koletsos, D. Riggos, K. Mavromatidis, K. Sombolos, S. Bursztein
Influence of continuous haemofiltration-related hypothermia on haemodynamic variables and gas exchange in septic patients 431

Brief reports
J. M. Saissy, M. Vitris, B. Diatta, J. Kempf, F. Adam, J. L. Sarthou
Severe malaria in African adults living in a seasonal endemic area 437

L. L. Low, G. R. Ripple, B. P. Bruderer, G. R. Harrington
Non-operative management of gastric perforation secondary to cardiopulmonary resuscitation 442

C. Martin, G. Perrin, P. Saux, L. Papazian, F. Gouin
Effects of norepinephrine on right ventricular function in septic shock patients 444

J. J. Tarpey, L. Lynch, S. Hart
The use of the laryngeal mask airway to facilitate the insertion of a percutaneous tracheostomy 448

K. Nakazawa, Y. Hikawa, Y. Saitoh, N. Tanaka, K. Yasuda, K. Amaha
Usefulness of central venous oxygen saturation monitoring during cardiopulmonary resuscitation. A comparative case study with end-tidal carbon dioxide monitoring 450

Review article
J. Arnold, H. Hendriks, C. Ince, H. Bruining
Tonometry to assess the adequacy of splanchnic oxygenation in the critically ill patient 452

Correspondence 457

Announcements 462

Number 7

Editorials
N. M. Al-Saady
Does dietary manipulation influence weaning from artificial ventilation? 463

P. B. Hazard
Further refinement of percutaneous tracheostomy technique 466

R. W. Light
Tension pneumothorax 468

Originals
B. van den Berg, J. M. Bogaard, W. C. J. Hop
High fat, low carbohydrate, enteral feeding in patients weaning from the ventilator 470

W.-B. Winkler, R. Karnik, O. Seelmann, J. Havlicek, J. Slany
Bedside percutaneous dilational tracheostomy with endoscopic guidance: experience with 71 ICU patients 476

G. Janvier, H. Guenard, A. M. Lomenech
In vitro accuracy of three blood O_2 saturation optic catheter systems 480

A. Armaganidis, J. F. Dhainaut, J. L. Billard, K. Klouche, J. P. Mira, F. Brunet, A. T. Dinh-Xuan, J. Dall'Ava-Santucci
Accuracy assessment for three fiberoptic pulmonary artery catheters for SvO_2 monitoring 484

J. L. Moran, M. J. Chapman, M. S. O'Fathartaigh, A. R. Peisach, P. R. Pannall, P. Leppard
Hypocortisolaemia and adrenocortical responsiveness at onset of septic shock 489

Neonatal and pediatric intensive care
J. Sizun, A. Karangwa, J. D. Giroux, O. Masure, A. M. Simitzis, D. Alix, L. De Parscau
Malassezia furfur-related colonization and infection of central venous catheters. A prospective study in a pediatric intensive care unit 496

G. Buheitel, J. Scharf, M. Hofbeck, H. Singer
Estimation of cardiac index by means of the arterial and the mixed venous oxygen content and pulmonary oxygen uptake determination in the early post-operative period following surgery of congenital heart disease 500

J. D. Tobias, J. K. Deshpande, D. F. Gregory
Outpatient therapy of iatrogenic drug dependency following prolonged sedation in the pediatric intensive care unit 504

N. W. Wilson, Y. P. Wu, B. Peterson, J. F. Bastian
Immunoglobulins and IgG subclasses in children following severe head injury 508

F. Leclerc, Y. Riou, A. Martinot, L. Storme, V. Hue, V. Flurin, A. Deschildre, A. Sadik
Inhaled nitric oxide for a severe respiratory syncytial virus infection in an infant with bronchopulmonary dysplasia 511

Review article
J. N. Shephard, S. J. Brecker, T. W. Evans
Bedside assessment of myocardial performance in the critically ill 513

Expert panel
British Society for Antimicrobial Chemotherapy Working Party
Management of deep *Candida* infection in surgical and intensive care unit patients 522

Correspondence 529

Book review 499

Announcements 534

Number 8

Editorials
R. E. Cunnion, Ch. Natanson
Echocardiography, pulmonary artery catheterization, and radionuclide cineangiography in septic shock 535

I. Durand-Zaleski
Estimating the cost of intensive care 538

D. J. Cook
Practice guidelines – an emerging synthetic science 540

Originals
M. Singer, S. Myers, G. Hall, S. L. Cohen, R. F. Armstrong
The cost of intensive care: a comparison on one unit between 1988 and 1991 542

F. Jardin, B. Valtier, A. Beauchet, O. Dubourg, J. P. Bourdarias
Invasive monitoring combined with two-dimensional echocardiographic study in septic shock 550

J. Sörensen, B. Kald, C. Tagesson, M. Lindahl
Platelet-activating factor and phospholipase A_2 in patients with septic shock and trauma 555

M. M. Niskanen, A. Kari, J. A. Hernesniemi, M. P. Vapalahti, E. Iisalo, L. Kaukinen, R. Rauhala, E. Saarela, P. Nikki
Contribution of non-neurologic disturbances in acute physiology to the prediction of intensive care outcome after head injury or non-traumatic intracranial haemorrhage 562

B. Asgeirsson, P. O. Grände
Effects of arterial and venous pressure alterations on transcapillary fluid exchange during raised tissue pressure 567

Brief reports
G. Conti, M. Rocco, R. A. De Blasi, A. Lappa, M. Antonelli, M. Bufi, A. Gasparetto
A new device to remove obstruction from endotracheal tubes during mechanical ventilation in critically ill patients 573

J. M. Días-Cremades, R. Lorenzo, M. Sánchez, M. J. Moreno, M. J. Alsar, J. M. Bosch, L. Fajardo, D. González, D. Guerrero
Use of antithrombin III in critical patients 577

J. D. Young, O. Dyar, L. Xiong, S. Howell
Methaemoglobin production in normal adults inhaling low concentrations of nitric oxide 581

R. Robert, J. Ferrandis, F. Malin, D. Herpin, O. Pourrat
Enhancement of hypoxemia by right-to-left atrial shunting in severe asthma 585

M. Sugrue, M. D. Buist, A. Lee, D. J. Sanchez, K. M. Hillman
Intra-abdominal pressure measurement using a modified nasogastric tube: description and validation of a new technique 588

J.-M. Rimaniol, F.-J. Authier, P. Chariot
Muscle weakness in intensive care patients: initial manifestation of vitamin D deficiency 591

Review articles
N. Roche, P. Durieux
Clinical practice guidelines: from methodological to practical issues 593

G. Camus, G. Deby-Dupont, J. Duchateau, C. Deby, J. Pincemail, M. Lamy
Are similar inflammatory factors involved in strenuous exercise and sepsis? 602

Correspondence 611

Abstracts of the European Society of Pediatric Intensive Care Annual Internal Meeting, Lyon, France, September 1–2, 1994 615

Announcements 549

Acknowledgement to referees 621

Author index 623

Subject index 625

Contents of volume 20

Supplement 1

Third International Congress on the Immune Consequences of Trauma, Shock and Sepsis – Mechanisms and Therapeutic Approaches. 2–5 March 1994, Munich

Edited by: Eugen Faist, Arthur E. Baue, Lambert Thijs

Supplement 2

7th European Congress on Intensive Care Medicine. Innsbruck, June 14–17, 1994. East and West – a Common Future

Edited by: N. Mutz, W. Koller, H. Benzer

Supplement 3

Advances in the treatment of infections in the ICU: the role of piperacillin/tazobactam

Symposium held at the 6th European Congress on Intensive Care Medicine, Barcelona, Spain, October 27–31, 1992

A. Trilla
Epidemiology of nosocomial infections in adult intensive care units S 1

J. Garau
Beta-lactamases: current situation and clinical importance S 5

D. M. Livermore
Evolution of β-lactamase inhibitors S 10

F. Sörgel, M. Kinzig
Pharmacokinetic characteristics of piperacillin/tazobactam S 14

C. V. Sanders, Jr.
Piperacillin/tazobactam in the treatment of community-acquired and nosocomial respiratory tract infections: a review S 21

S. L. Gorbach
Piperacillin/tazobactam in the treatment of polymicrobial infections S 27

C. E. Nord
The treatment of severe intra-abdominal infections: the role of piperacillin/tazobactam S 35

P. Nowé
Piperacillin/tazobactam in complicated urinary tract infections S 39

P. Charbonneau
Review of piperacillin/tazobactam in the treatment of bacteremic infections and summary of clinical efficacy S 43

Supplement 4

Infection in the ICU: current problems

Proceedings of a symposium held on 13 November 1993 in Prague

Guest editors: J.-L. Vincent, R. C. Spencer

J.-L. Vincent, R. C. Spencer
Introduction S 1

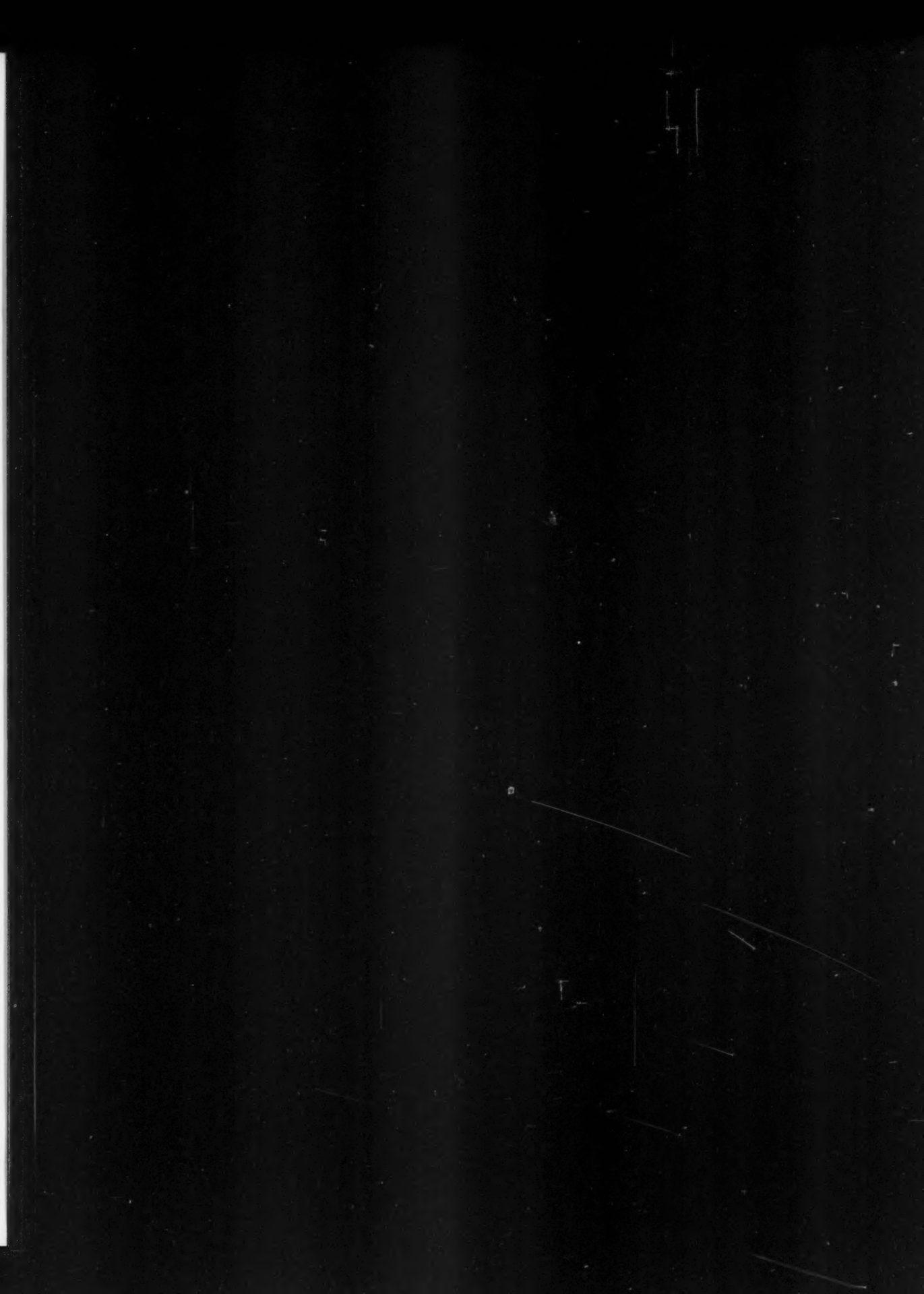
R. C. Spencer
Epidemiology of infection in ICUs S 2

A. F. Widmer
Infection control and prevention strategies in the ICU S 7

M. Langer, S. Pifferi, M. Peta
Diagnosis of bacterial infection in the ICU: general principles S 12

R. N. Grüneberg, A. P. R. Wilson
Anti-infective treatment in intensive care: the role of glycopeptides S 17

A. W. Chow, R. M. Azar
Glycopeptides and nephrotoxicity S 23

L. Donati, P. Periti
Antibiotic treatment of burned patients: an Italian multicentre study S 30

P. Charbonneau, I. Harding, J. J. Garaud, J. Aubertin, F. Brunet, Y. Domart
Teicoplanin: a well-tolerated and easily administered alternative to vancomycin for Gram-positive infections in intensive care patients S 35